



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,896	05/04/2001	Stephen Ernest Jacobson	CH2714 US NA	8728

23906 7590 12/03/2003

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1128  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805

EXAMINER
----------

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

848896

Applicant(s)

Jacobson et al

Examiner

W. Langel

Group Art Unit

1754

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 9-11-03

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 1 and 3-10 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1 and 3-10 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 11

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

Art Unit 1754

Claims 1, 3-6, 8 and 10 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no "description support" in the original specification for employing a zeolite having a silicon to aluminum ratio "greater than about 15". Applicant's argument, that basis for this limitation is in the specification at page 12, lines 9-13, is not convincing, since that portion of the specification discloses that a mordenite having a silicon to aluminum ratio of 15 was employed. Such disclosure would not provide support for a silicon to aluminum ratio of "greater than about 15".

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Amelin et al. (Russian Invention

Art Unit 1754

Specification 226567) (of record) in view of either Sharp (newly cited) or McGill et al. (newly cited). Amelin et al. disclose that sulfur trioxide was produced from gaseous mixtures by adsorbing the sulfur trioxide on a silica gel at 50 to 120°, with subsequent desorption at 150 to 300°, and discloses that the dry solid product is easily transportable. The difference between the process and sorbent disclosed by Amelin et al., and that recited in applicant's claims, is that Amelin et al. do not specifically disclose that the silica should have a pore size of at least 0.5 nanometers. Sharp and McGill et al. both disclose silica having pore sizes of greater than 0.5 nanometers. (See the Abstract of Sharp and the Abstract of McGill et al.) It would be prima facie obvious to employ the silica of either Sharp or McGill et al. as the sorbent in the process of Amelin et al., since the process of Amelin et al. is directed broadly to the use of any known or conventional silica gel, and one of ordinary skill in the art would expect that the silica gels of Sharp and McGill et al. which have high pore diameters would be useful as sulfur trioxide sorbents, since the higher pore diameters would allow the sulfur trioxide to be trapped more easily than would a silica gel with a smaller pore diameter.

Claims 7 and 9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

Art Unit 1754

regards as the invention. In claim 7, it is indefinite as to what would constitute a "silicalite". In any event, there is no antecedent basis for "silicalite", since claim 1 requires that the sorbent be either silica or a zeolite. It is also indefinite in claim 7 as to whether the recitation of "having a silicon to aluminum ratio of at least 25" would refer to both the silicalite and the zeolite, or only to the zeolite. In claim 9, it is indefinite as to whether the sorbent is required to be a zeolite, or whether the sorbent could be a composition other than a zeolite, so long as the composition has a silicon to aluminum ratio of at least 25.

This application apparently discloses allowable subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (703) 308-0248. The examiner can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (703) 308-3837. The fax phone number for this Group is (703) 872-9306.

Serial No. 09/848,896

-5-

Art Unit 1754

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2351.

WAL:cdc

November 25, 2003

**WAYNE A. LANGE**  
**PRIMARY EXAMINER**